

REMARKS

Claims 1-14, 30-43, 59-72 and 117-130 were previously pending in the application. Claims 15-29, 44-58, 73-116 and 131-145 were previously withdrawn and are cancelled herein. In addition, Claims 1-5, 30-34, 59-63, and 117-121 are cancelled herein. New Claims 146-166 are presented herein for consideration. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

Applicant would like to thank Examiner Patel for courtesy extended during the interview on March 30, 2005. During the interview, the Examiner agreed that Claims 6, 11 and 13 distinguish over the prior art of record. A copy of the Examiner Interview Summary is attached hereto.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-8, 14, 30-37, 43, 59-65, 117-124 and 130 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bar-Niv (U.S. Pat. No. 6,442,142). This rejection is respectfully traversed.

Claims 1-5 were cancelled.

With respect to Claim 6, Bar-Niv does not show, teach or suggest a sense circuit that powers down the physical layer and returns to the sense state if a timer times out before autonegotiation is complete.

As best understood by Applicant, the device in Bar-Niv is initially in a sense state. SIGON signals are generated when a differential signal on the medium exceeds a threshold. The device however, remains in the sense state until further filtering and

validation occur. The SIGON signals are filtered and output to a signal validation circuit. A Signal_Valid signal is output when two SIGON signals are generated that have leading edges that are spaced greater than 1 ms and less than 64 ms. Therefore, a transition from the sense state to the autonegotiation state occurs only when the Signal_Valid state is asserted and not earlier.

If the timer timing the 64 ms times out before two SIGON events occur, the Signal_Valid is not asserted, the device remains in the sense state, and autonegotiation is not initiated. If the Signal_Valid signal is asserted, the device enters the autonegotiation state.

Therefore, the timer in Bar-Niv is involved with the triggering of the autonegotiation state. This timer is not involved in sensing of whether autonegotiation completes within a predetermined period or with the return of the device the sense state after the autonegotiation state occurs.

Therefore, Applicant believes that Claim 6 is allowable over Bar-Niv. Claims 7-8 and 14 are directly or indirectly dependent upon Claim 6 and are allowable at least for similar reasons as Claim 6.

Claims 35, 64, and 122 are allowable for at least similar reasons as Claim 6.

Claims (36, 37 and 43), (65, 66 and 72) and (123, 124 and 130) are directly or indirectly dependent upon Claims 35, 64 and 122 and are allowable for at least similar reasons.

REJECTION UNDER 35 U.S.C. § 103

Claims 9-13, 38-42, 66-70 and 125-129 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bar-Niv (U.S. Pat. No. 6,442,142) in view of Foster (U.S. Pat. No. 6,026,494). This rejection is respectfully traversed.

With respect to Claim 9, neither Bar-Niv nor Foster show, teach or suggest a sense circuit that includes a second timer that communicates with the transmitter and that is reset when the receive signal is generated by the sense circuit.

Bar-Niv is silent with respect to the second timer as admitted by the Examiner.

As best understood by Applicant, Timer2 in Foster is reset when a valid link is no longer present or when autonegotiation does not complete for a third period. These conditions are not the equivalent of resetting the second timer when a receive signal is generated by the sense circuit.

Therefore, Claim 9 is allowable over the prior art of record. Claim 10 is dependent upon Claim 9 and is therefore allowable for at least similar reasons.

Claims 38, 67, and 125 are allowable for at least similar reasons as Claim 9. Claims 39, 68 and 126 are dependent upon Claims 38, 67 and 125, respectively, and are therefore allowable for at least similar reasons.

With respect to Claim 11, neither Bar-Niv nor Foster show, teach or suggest turning the transmitter off and returning to the sense state after the transmitter generates the pulse.

Bar-Niv is silent with respect to the second timer as admitted by the Examiner.

In Foster, this type of operation does not appear to occur since autonegotiation is triggered when Timer2 times out. Autonegotiation does not involve turning on the

transmitter, generating a pulse, turning off the transmitter and returning to the sense state.

Therefore, Applicant believes that Claim 11 is allowable over the prior art of record. Claim 12 is dependent upon Claim 11 and is therefore allowable for at least similar reasons.

Claims 40, 69, and 127 are allowable for at least similar reasons as Claim 11. Claims 41, 70, and 128 are dependent upon Claims 40, 69, and 127, respectively and are therefore allowable for at least similar reasons.

Regarding Claim 13, neither Bar-Niv nor Foster show, teach or suggest a switching circuit that senses a connection configuration of the second physical layer and adjusts a connection configuration of the first physical layer to match the connection configuration of the second physical layer device.

Bar-Niv and Foster are silent on connection configurations. Therefore, Claim 13 is allowable over the prior art of record for this reason.

Claims 42, 71 and 129 are allowable for at least similar reasons as Claim 13.

New Claims 146-166 are presented herein for consideration and are believed to be allowable over the prior art of record for at least the same reasons as those set forth above.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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